## \*93026\*

Page 1

Fovember-13-12 12:39:57 PM

**Required Date:** 27/11/2012

Item ID: **Revision ID:**  D350-636-011

Accept

\*N900040100\*

Setup Start

Item Name: **Start Date:** 

Skidtube LH 13/11/2012

QC:

Start Qty: 1.00 Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan: 15 Date: 12-11-13

Date:

Tooling:

SPC (Y/N):

Date: Date:

Run

Sequence ID/ Work Center ID

**Draw Nbr** 

Operation Description

**Revision Nbr** 

Set Up/ **Run Hours** 

Tool ID

Tool # Plan Code

Accept

Reject

Reject

Insp. Number Stamp

D2750

100

\*100\*

DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy blue file and type labels per PPP D350-636-0

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											DQA:	Date:	111		
NCR: Ye	es / I	10				WORK ORDER NON-C	CON	NFORM	MANCE / UPDATE		QA Closed:	Date:	4		
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Work Order	r:					DISPOSITION			AG	AINST DEF	DEPARTMENT/PROCESS				
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NCR No	o				<u> </u>	Use-as-is Work Order Update			~ <del>                                    </del>	ishing posite	Rec/Store/Packaging Other Supplier				
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Heat Treat					Countersink		Mislabe	led		Positioned V	Vrong				
	Inspe	ction Stri	p in Tu	ube		Cut Too Short		Misread	<b>.</b> •		Power Loss/Surge		Other		
~   T	Rippl	es in Bend	<b>.</b>			Drill Holes		Offset				_			
Torque Waves in Extrusion						Drawing		Out of 0	Calibration						

Out of Sequence

Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Finish

## Work Order ID 93026

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\*93026\*

ltem ID:

D350-636-011

Accept

\*N900040100\*

Setup Start \*NC1

Stop \*NS2\*

Revision ID:

item Name: Skidtube LH

**Required Date:** 27/11/2012

Start Date:

13/11/2012

Start Qty: 1.00 Req'd Qty: 1.00 \*1\*

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan:

QC:

Date:

Tooling:

SPC(Y/N):

Date:

Run Star

\*NR1\*

Stop

\*NR2

Sequence ID/ Work Center ID

110

\*110\*

Skidtubes

Skidtubes

Operation Description

Set Up/ Run Hours Tool ID

Tool# Plan Code Accept Qty Reject Qty Reject Number

Insp. Stamp

Skidtubes

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0.00

0.00

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750  $\,$ 

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details).Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. \*\*\*SECOND SIDE\*\*\*

8-Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10-Open up holes of Detail A to 0.297" (total of 2 holes per side)

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12-11-26

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# WORK ORDER NON-CONFORMANCE / UPDATE

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Item ID:	D350-636-0	11
Revision ID:	1	
Item Name:	Skidtube LH	
Start Date:	13/11/2012	:
Required Date	27/11/2012	
Reference:		
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Quality Control		

Accept

\*N900040100\*

Setup Start

Start Qty: 1.00

Cust Item ID:

**Customer:** 

Date:

Date:

**Tooling:** 

SPC (Y/N):

Date: Date:

Stop

Operation Description

Req'd Qty: 1.00

Set Up/ **Run Hours**  Tool ID

Tool # Plan Code

Accept Qty

Reject Qty

Run

Reject Insp. Number Stamp

11-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left

from bending as per QSI 004

A/R Aluminum Rod batch: M122

12-Grind welds flush as per Dwg D2750

(F 12.11-27

QC10- Inspect visual per QSI004- ground welds

0.00

0.00

130

QC5- Inspect part completeness to step on W/O

0.00

Memo

Memo

0.00

19-11-92

Quality Control

NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												1 2	
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Cause		Date	Step	Qty	(	or Non-conformance	Ct	nief Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
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Out of Sequence

Outside Dimensions

DQA:

Date:

Turning Sequence

Wave/Twist in Tube

Finish

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### Work Order ID 93026

November-13-12 12:39:58 PM

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Quality Control

\*93026\*

Item ID: D350-636-011 Accept \*N900040100\* Setup Start Revision ID: Altem Name: Skidtube LH Start Date: 13/11/2012 Start Qty: 1.00 Cust Item ID: Required Date: 27/11/2012 Req'd Qty: 1.00 **Customer:** Reference: Run Approvals: Process Plan: Date: **Tooling:** Date: Stop QC: Date: **SPC (Y/N):** Date: Sequence ID/ Operation Tool ID Set Up/ Tool# Reject Plan Accept Reject Insp. Work Center ID Description **Run Hours** Code Qty Number Stamp **Qty** 140 Chemical Conversion Coat per QSI005 4.1 0.00 \*1**4**0\* HandFinish 0.00 Memo Hand Finishing 150 QC7-Inspect Chemical Conversion Coat 0.00

0.00

Memo

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Outside Dimensions

Wave/Twist in Tube

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\*93026\*

November-13-12 12:39:58 PM

Item ID:

D350-636-011

Accept

\*N900040100\*

Setup Start

Revision ID: Item Name:

Skidtube LH

Start Date: 13/11/2012

**Required Date:** 27/11/2012

Start Qty: 1.00

Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/ Work Center ID

160

\*16**0**\* Skidtubes

Kidtubes

Operation Description

Set Up/ **Run Hours**  Tool ID

Tool# Plan Code

Accept Qty

Reject **Qty** 

Reject Number Stamp

Skidtubes

Memo

0.00

0.00

✓-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per

as per dwg D2750.

**Z**-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750.

2-Open float hole to 0.500" (4 per side)

A Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8)

8-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per OSI 015

A/R Sikaflex-291

batch: 11123353

exp. date: 13-06-22

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004

(welding instructions on sheet 8) A/R Aluminum Rod batch: M/2

9- At section AJ-AJ drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750 \_\_\_

			DQA:	Date:	,
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			
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\*93026\* Page 6 November-13-12 12:39:58 PM Îtem ID: 🔌 D350-636-011 Accept \*N900040100\* Setup Start Revision ID: Skidtube LH Item Name: Start Date: 13/11/2012 Start Qty: 1.00 **Cust Item ID: Required Date: 27/11/2012** Req'd Qty: 1.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description **Run Hours** Code Qty Qty Number Stamp 11-Spot face ground handling holes section (total of 4 places per side) as per dwg D2750 DC 12/12/64 12-Deburr holes QC10- Inspect visual per QSI004- ground welds 0.00 QC. 0.00 Memo Quality Control 180 QC5- Inspect part completeness to step on W/O 0.00

\*180\* QC

Quality Control

0.00 Memo

\*\*\*VERIFY C'BOARD IS GOOD\*\*\*

		DQA:	Date:		•
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Page 7

Reject

Number

Insp.

Stamp

Item ID: D350-636-011 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Skidtube LH **Start Date:** 13/11/2012 Start Qty: 1.00 **Cust Item ID: Required Date: 27/11/2012** Req'd Oty: 1.00 **Customer:** Reference: Run **Approvals: Process Plan:** Date: Tooling: Date: QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Reject Tool # Plan Accept **Work Center ID** Description **Run Hours** Code Qty Qty 190 Pressure Wash per QSI005 4.3 0.00 \*190\* HandFinish 0.00 Memo Hand Finishing Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch. 200 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 Powdercoat Memo Powder Coating OVEN TEMPERATURE FINISH TIME: 210 QC3- Inspect Part Finish 0.00 that & Mullinoc 0.00 Memo Quality Control Inspect for foreign object per QSI 024

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		Crushed/C	rimned		-	Burrs	$\vdash$	4	ions Incomplete/Unclear	-	Part Lost/Mi	<b> </b>	Wrong Stock Pulled
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Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

#### Work Order ID 93026

\*93026\*

November-13-12 12:39:58 PM Item ID: D350-636-011 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Skidtube LH **Start Date:** 13/11/2012 Start Qty: 1.00 **Cust Item ID: Required Date: 27/11/2012** Req'd Qty: 1.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: **Tooling:** Date: QC: SPC (Y/N): Date: Date: Sequence ID/ Operation Set Up/ Reject Tool ID Tool # Plan Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Oty Number Stamp 220 0.00 HandFinishing \*220\* HandFinish 0.00 Memo Hand Finishing 1- Install inserts as per Dwg D2750 230 0.00 HandFinishing \*230\* The & Mulator HandFinish 0.00 Memo Hand Finishing 1-Inspect for Foreign Objects / 2-Spray inside of tube with "LPS-3" batch: NIA 3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: 1113853 EXP DATE: 13105 4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch:  $\frac{h/l}{L}$  \ \( \lambda \lambda \lambda \lambda \) \_ 5-Coat all exposed fasteners with "LPS Procyon" batch: ハリジろん

NCR:	Yes	/	No

												DQA:	Da	ite: _	•	
NCR:	Yes	/ No				WORK ORDER NON-	CON	NFORM	MANCE / UP	DATE	1	QA Closed:	Da	ate:	د	•
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Root Cause		Date	Step	Qty		iption of work order update or Non-conformance	1	nitial ief Eng		tion ription		Sign & Date	Verification	on	QC Inspec	tor
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Landi	ling Gear General  Bending Bend Centre Not Concentric to O/S BOM/Route Cracks Broken/Damaged Burrs Cuffs Contamination Heat Treat Countersink Inspection Strip in Tube Ripples in Bend Drill Holes Torque Waves in Extrusion Turning Sequence Finish		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Mainte Mislabe Misread Offset Out of O	on Incomplete ions Incomplete/ nance led	'Unclear · .		Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong		Pressure/Force Temperature/C Weld Wrong Stock Po Other	Cure			
		Wave/Tw			-	Folio		i	Dimensions							

\*260\* QC

Quality Control

QC4- 100% Inspect kits for completeness

Memo

\*\*\*\*\*ensure antiseize is on AN8C21A bolts\*\*\*\*\*

260

0.00

0.00

											DQA:	Date:	
NCR:	es /	' No				WORK ORDER NON-	CONFC	)RM	IANCE / UPD	DATE			
						T					QA Closed:	Date:	
Maral. Ond						DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS	•
Work Orde	er:	1941 0.0				Rework	7 <b> </b>	c	skid-tube	Crosstube	٦	Water Jet	Engineering
Part N	do					Scrap	1 1		lachining	Small Fab	Pro	d. Eng. Coor.	Quality
raiti	<b>'</b> 0. —		,			Use-as-is	┥┃┰		oforming	Finishing	-	re/Packaging	Other
NCR N	No.					Work Order Update	<b>1 I</b> "		arge Fab	Composite	1	Supplier	1 1
				:		' _			·	· <u>L</u>			
Root					Descri	ption of work order update	Initia	al	Acti	ion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Chief I	Eng	Descr	iption	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	Ш							1					
Operator			:										
Material	Ш												
Setup	Ш												
Other	۵						**						
Process													
Supplier	Н												
Training	Щ												
Unapproved				<u> </u>			1 7 6	1756	ODV			<u> </u>	
Landi						General	AULT C	AIEG	UKY				
Landi		ar ending				Bend	Gra	in		Г	Ovalized	_	Pressure/Forced
	${f -}$	_	t Concer	atric to	0/5	BOM/Route	<del></del>	dware	0		Over/Under	tolerance	Temperature/Cure
	$\vdash$	racks	it concer	THE LO	·/3	Broken/Damaged	<b>⊢</b>		e on Incomplete	-	Part Incorre	-	Weld
	-	rushed/0	rimned		-	Burrs	<b>—</b>		ons Incomplete/U	Inclear	Part Lost/M	<u> </u>	Wrong Stock Pulled
	_	uffs	simpeu,		-	Contamination	_		nance		Part Moved		
	$\vdash$	eat Trea	t	•	-	Countersink	$\vdash$	labele		-	Positioned		

Misread

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

## Work Order ID 93026

November-13-12 12:39:58 PM

D350-636-011 Item ID:

**Revision ID:** 

Reference:

**Approvals:** 

-Sequence ID/

Item Name: Skidtube LH

**Start Date: Required Date:** 27/11/2012

13/11/2012

Start Qty: 1.00

Req'd Qty: 1.00

Date:

QC:

Date:

**Work Center ID** 

Process Plan:

~ 270

\*270\*

Packaging

Packaging

280

Packaging

Memo

Operation

**Description** 

Memo

Package as per PPP D350-636-011

QC21- Final Inspection - Work Order Release

\*280\*

QC

Quality Control

0.00

Accept

**Tooling:** 

0.00

0.00

SPC (Y/N):

Set Up/

**Run Hours** 

\*93026\*

\*N900040100\*

Setup Start

**Cust Item ID:** 

**Customer:** 

Tool ID

Date:

Tool #

Plan

Code

Date:

Reject Reject Insp.

Number Qty Qty Stamp

Run

Accept



												DQA:	Date:	•	•
NCR:	Yes	/ No					WORK ORDER NON-C	O	VFORM	MANCE / UPDATE		•		•	•
												QA Closed:	Date:		
Work Ord	er:						DISPOSITION			AGA	AINST DE	PARTMENT	PROCESS	•	}
	Part No.					Rework Scrap Use-as-is		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing			4	Water Jet d. Eng. Coor. e/Packaging	Engineerin Qualit Othe	У	
NCR I	No.						Work Order Update	]	1	<b>Ğ</b> ——	posite	]	Supplier		
Root					Des	cri	otion of work order update	1	nitial	Action		Sign &			
Cause		Date	Step	Qty		C	or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspe	ector
oc/Data quip/Tooling perator Material etup Other. rocess upplier raining	•				•										
							F	AUL	T CATE	GORY					
Landi	ng (	Gear			-		General					<b>-</b>		_	
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped			Bend BOM/Route Broken/Damaged Burrs	l lr		re ion Incomplete ions Incomplete/Unclear		Ovalized Over/Under Part Incorred Part Lost/Mi	ct	Pressure/Fore Temperature Weld Wrong Stock	/Cure			
	$\vdash$	Cuffs Heat Trea	+				Contamination Countersink	$\vdash$	Mainte Mislabe		<u> </u>	Part Moved Positioned V	Mrong		
	$\vdash$	Inspection		Tube			Cut Too Short	$\vdash$	Misread		-	Power Loss/		Other	
	$\vdash$	Ripples in	•				Drill Holes	$\vdash$	Offset	-	<u>L</u>	٦. ٥.,٠٠٠ د		1011101	
		Torque W		xtrusio	n		Drawing		4	Calibration					
		Turning S					Finish		Out of 9	Sequence					

Outside Dimensions

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:01 PM

Work Order ID: 93026

Parent Item: D350-

D350-636-011

Parent Item Name: Skidtube LH

\*93026\*
\*D350-636-011\*

**Start Date:** 13/11/2012

Start Qty: 1.00

**Required Date: 27/11/2012** 

Page 1

Required Qty: 1.00

Comments:

IPP Rev:I 02.09.25 Rearranged procedure steps KJ IPP Rev:J 06-03-23 As per Rev D JLM

IPP Rev:K 06-07.13 As per dsi9343 EC

IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC IPP Rev:M 08-04-22 update steps 4, 13 DD verified by:EC IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec

IPP Rev:O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010 DD verf:EC IPP Rev:P 10.06.22 revise seq110 DD verf:EC IPP Rev:Q 10.10.01 as per IIN revH

DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3492-1		Manufactured	No		-	230	Each	106.0000	8	8			
*D3492-1*	7								**	IJĹ	12/12	104	

Location	Loc Qty	Loc Code	
FP002	18		
69531	8		
74444	2		
76235	4		
88541	3		
89363	1		
FP-A	88		·
83098	7		
91466	81		X &

												DQA:	Date	• ,
NCR:	Yes	/ No					WORK ORDER NON-C	100	VFORI	MANCE / UPI	DATE	•		•
						_						QA Closed:	Date	:
Work Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	PROCESS	·
Part	Part No					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	-1	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other	
Root					Desc	rip	otion of work order update		Initial	Act	ion	Sign &		
Cause		Date	Step	Qty		0	r Non-conformance	Ch	nief Eng	Descr	iption	Date	Verification	QC Inspector
oc/Data quip/Tooling perator laterial etup other rocess upplier raining napproved		,												
								AUL	T CATE	GORY		<del> </del>		
Land		Bending Centre No Cracks Crushed/C Cuffs Heat Trea Inspection Ripples in Torque W	Crimped. t n Strip in Bend	Tube	- - - - -		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing		Instruct Mainte Mislabe Misread Offset	ion Incomplete ions Incomplete/Uenance eled	Jnclear	Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	$\vdash$	Turning So			·  -		Finish	$\vdash$	4	Sequence				-

Outside Dimensions

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:01 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH \*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

Required Date: 27/11/2012

Start Qty: 1.00

Required Qty: 1.00

D3492-3

Manufactured

Purchased

No

230

Each

139 0000

\*\*

ulnoc

Plug

Location	<u>n</u>	Loc	e Oty	Loc Code		
FP001			40			
	90322		40			
FP002			28			√ %
	89291		28			
FP-A			71			
	81967		5			
	83099		3			
	85461		1			
	86865		2			<del></del>
	91610		60			
		230	Each	328.0000	8	8
				k	**	el ululoce

O-RING

NAS1611-010

**Location** Loc Qty Loc Code FP 184 110915 123348 184 FP001 144 110915 14 117460 118077 118612 119438 39

8

60

123352

NCR:	/es	/ No					WORK ORDER NON-C	O	NFORM	MANCE / UPDATE			_	
								- 1			(	QA Closed:	Date:	
Work Orde	er:	<del></del>					DISPOSITION		II.	<del></del>	DEP	ARTMENT/		· 1
Part N	۱o.			<del></del>			Rework Scrap Use-as-is		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing				Water Jet d. Eng. Coor e/Packaging	Engineering Quality Other
NCR N	No.	•	<del> </del>				Work Order Update	Large Fab Composite Supplier						
Root					Des	crip	otion of work order update	1	nitial	Action		Sign &		
Cause		Date	Step	Qty		C	r Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
oc/Data quip/Tooling				,						\(\frac{1}{2}\)				
perator										\$ <b>1</b>				
/laterial										•				
etup										١				
Other														
rocess														
upplier														
raining								1						
Inapproved					<u>!</u>			<u> </u>	T CATE	I				
Landi	na (						General	AUL	.I CAIL	GONT				
Landi		Bending			1		Bend		Grain		$\Box$	Ovalized		Pressure/Forced
		Centre No	nt Concer	ntric to 1	0/5		BOM/Route	$\vdash$	Hardwa	ire	-	Over/Under	tolerance	Temperature/Cure
		Cracks			-,-		Broken/Damaged		1	ion Incomplete		Part Incorred	<b></b>	Weld
		Crushed/0	Crimped.				Burrs		1	ions Incomplete/Unclear	$\vdash$	Part Lost/Mi	<del></del>	Wrong Stock Pulled
		Cuffs	•				Contamination		Mainte			Part Moved	~ L	<b>_</b>
		Heat Trea	t				Countersink		Mislabe		Н	Positioned V	Vrong	
ļ		  Inspection	n Strip in	Tube			Cut Too Short	Г	Misread	d	_	Power Loss/		Other
		Ripples in	-				Drill Holes		Offset				<u> </u>	
		Torque W	aves in E	xtrusio	n	-	Drawing		Out of (	Calibration	Ÿ			
		Turning Se	eauence				Finish		Out of	Sequence	•	=		

Outside Dimensions

DQA: Date:

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:01 PM

Work Order ID: 93026

Parent Item:

NAS1149D0863J

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

No

Start Date: 13/11/2012

**Required Date: 27/11/2012** 

Required Qty: 1.00

Start Qty: 1.00 127.0000

Manufactured

Purchased

Location	<u>Lo</u>	c Qty
ST298		127
118078		18
119307		1
120308		8
121556		100
A	110	Each

250

Each

45.0000

Loc Code

121556

\*\*

BE 12-11-27

·		
D2600-3-BENT Manufactured	No	

Location

Loc Qty Loc Code LG002 62715 85506 18 91307 26 110 Each 30.0000 \*\*

12-11-26

<b>Location</b>	Loc Qty	Loc Code
LG	30	
66875	7	
73253	1	
75021	1	
75022	1	
75023	1	
81330	4	
83305	1	
92049	14	
	an."	

			DQA: Dat	e: •
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE	•
	,			•

									QA Closed:	Date	•	
Work Orde	er:				DISPOSITION		AGAINST DEPARTMENT/PROCESS .					
	· · · · · · · · · · · · · · · · · · ·				Rework	]	Skid-tube	Crosstube		Water Jet	Engineering	
Part N	No.				Scrap	1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
		:			Use-as-is	Ther	moforming	Finishing	i	e/Packaging	Other	
NCR N	No.				Work Order Update	1 1	Large Fab	Composite	1	Supplier	1   1	
.,			1			<b>'</b>			4.			
Root				Descri	ption of work order update	Initial	Act	tion	Sign:&			
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Descr	ription	Da <u>te</u>	Verification	QC inspector	
Doc/Data									16	g <sup>2</sup> 1		
Equip/Tooling							1			•		
Operator												
Material												
Setup								•				
Other											*	
Process												
Supplier												
Training												
Unapproved												
					F.	AULT CAT	EGORY			,		
Landi	ng Gear				General			_	<b>.</b> *5	Г	· .	
	Bending				Bend	Grain	·		Ovalized	3 <sup>27</sup>	Pressure/Forced	
	Centre N	ot Conce	ntric to (	o/s	BOM/Route	Hardw	are		Over/Under	tolerance	Temperature/Cure	
	Cracks				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct	Weld	
	Crushed/	Crimped	,		Burrs	Instruc	tions Incomplete/l	Unclear	Part Lost/M	issing	Wrong Stock Pulled	
	Cuffs Contamination				Contamination	Maint	enance		Part Moved	_	<del>_</del>	
	➡				Countersink	Mislab	eled		Positioned V	Vrong		
	Inspection	n Strip in	Tube		Cut Too Short	Misrea	nd		Power Loss/	Surge	Other	
	Ripples in Bend				Drill Holes	Offset			<del>-</del>		v	
	Torque Waves in Extrusion			ı [	Drawing	Out of	Calibration					
	Turning Sequence				Finish	Out of	Sequence					
	M/ave/Tv	vist in Tub	20		Teolio	Outsid	e Dimensions					

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

8

**Required Date: 27/11/2012** 

Start Qty: 1.00 8

Required Qty: 1.00

Manufactured No 160 Each

175 0000

\*\*

BE12/12/01

	<b>Location</b>	Loc Qty	Loc Code		, ,
	LG	101			
	81965	23			
	83262	2			
	85459	4			
	88504	36		8	
	91619	36			
	LG001	74			
	67766	4			
	68251	3			•
	73403	64			
	74445	1			
	79517	2			
No		160 Each	12.0000 1	1	
			**		CF 12-11-29
					•

Location Loc Qty Loc Code LG 12 72155 81508 85487 87734

Manufactured

91650 91729 92571

										DQA:	Date:	•	
NCR: Y	'es	/ No				WORK ORDER NON-C	CONFO	RMANCE / UP		QA Closed:	Date:		
Work Orde	er:					DISPOSITION	AGAINST D				EPARTMENT/PROCESS .		
	Part No.					Rework Scrap Use-as-is	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing			Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other	
NCR No.						Work Order Update		Large Fab	Composite	1100/3101	Supplier		
Root					Descri	ption of work order update	Initial	Ac	tion	Sign &			
Cause		Date	Step	Qty		or Non-conformance	Chief Er	g Desc	ription	Date	Verification	QC Inspector	
Doc/Data													
Equip/Tooling													
Operator [													
Material													
Setup													
Other							]						
Process													

·	FAULT CATEGORY										
Landing	Gear	General									
	Bending	Bend		Grain		Ovalized		Pressure/Forced			
	Centre Not Concentric to O/S	BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure			
	Cracks	Broken/Damaged		Inspection Incomplete		Part Incorrect		Weld			
	Crushed/Crimped_	Burrs Contamination		Instructions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled			
	Cuffs			Maintenance		Part Moved					
	Heat Treat	Countersink		Mislabeled		Positioned Wrong					
	Inspection Strip in Tube	Cut Too Short		Misread		Power Loss/Surge		Other			
	Ripples in Bend	Drill Holes		Offset		_					
	Torque Waves in Extrusion Drawing		Out of Calibration								
	Turning Sequence Finish			Out of Sequence							
	Wave/Twist in Tube Folio			Outside Dimensions							

Supplier Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

Manufactured

\*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Required Qty: 1.00

Start Qty: 1.00

\*\*

22.0000

BE 12-12-04



		Locatio	<u>on</u>	<u>Lo</u>	c Qty	Loc Code		
		LG			22			
			90352		22			4
Manufactured	No			160	Each	84 0000	4	4
						*	*	

160

Location	Loc Qty	Loc Code	
LG	75		
81976	2		
86979	24		4
88617	2		
92572	47		
LG001	9		
62450	2		
74875	4		
77042	3		

Each

									DQA:	Date:	•
NCR: Y	es / No	_			WORK ORDER NON-C	ONFORM	MANCE / UP		QA Closed:	Date:	
Work Orde	r.				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	•
Part No	0.				Rework Scrap Use-as-is Work Order Update	1	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite			Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root Descr				Descri	ption of work order update	Initial	Ac	ction	Sign &		
Cause	Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
oc/Data											
quip/Tooling								•			
Operator											
∕laterial											
etup											
Other											
rocess											
Supplier		l									
raining											
Jnapproved											

FAULT CATEGORY										
Landing	Gear.	General		_		_		_		
	Bending	Bend		Grain		Ovalized		Pressure/Forced		
	Centre Not Concentric to O/S	BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure		
	Cracks	Broken/Damaged		Inspection Incomplete		Part Incorrect		Weld		
	Crushed/Crimped_	Burrs Contamination Countersink		Instructions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled		
	Cuffs			Maintenance		Part Moved				
	Heat Treat			Mislabeled	Г	Positioned Wrong				
	Inspection Strip in Tube	Cut Too Short		Misread		Power Loss/Surge		Other		
	Ripples in Bend	Drill Holes		Offset		-				
	Torque Waves in Extrusion Drawing			Out of Calibration						
	Turning Sequence Finish			Out of Sequence						
Wave/Twist in Tube Folio			Outside Dimensions							

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

ALS4-1032-225

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

2.037.000

Start Date: 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

\*\*

Insert

Location	<u>n</u>	<u>Lo</u>	e Qty	Loc Code			
FP-B			606				
	122290		606			V3%	
ST281			1408				
	108696		146				
	110768		62				_
	118386		55				_
	118966		68				
	121269		77				_
	122827		1000				_
ST282			23				_
	120410		10				_
	120451		13				_
		230	Each	26.0000	1	1	

Each

D3793-3

Manufactured

Purchased

No

M Milos

Location	Loc Qty	Loc Code
FP001	26	
87135	2	
91326	12	
92487	12	

220

											DQA:	Dat	e: .	•
NCR:	Yes	/ No				WORK ORDER NON-O	100	<b>NFORM</b>	//ANCE / UPDATE					
											QA Closed:	Dat	e:	•
Work Ord	er:					DISPOSITION			AGAIN	NST DE	PARTMENT	/PROCESS		•
Part I	No.	2				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite			Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other
Root					Descri	ption of work order update		Initial	Action		Sign &			<del>"</del>
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Description		Date	Verification	1	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
							AUI	LT CATE	GORY					
Landi	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube				o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread			Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N	ct issing Wrong		Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	Ripples in Bend					Drill Holes		Offset						

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

• November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased

No

230

Each 64.0000

\*\*

Location	Loc Qty	Loc Code	
FG	5		
121275	5		
FP	50		
123642	50		
FP002	8		* (
115960	1		
121275	7		
ST346	1		
114442	0		
115188	0		
115960	1		

D3793-1

D3488-041

Wearshoe

Manufactured

Manufactured

No

No

230

Each

25.0000

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10/12/0 6

Location Loc Qty Loc Code FP001 25 82171 2 87273 3 8999<u>9</u> 7 92382 13 230 Each 15.0000

11

Blade Fitting Assembly, I

Loc Qty Location Loc Code FP002 15 83407 85733 3

November-13-12 12:40:02 PM

**Shop Packet Print** 

88255

Page 7

											DQA:	Date:	
NCR: Y	es /	/ No				WORK ORDER NON-C	CON	NFORM	ANCE / UP	DATE			
						T	· · · · · ·				QA Closed:	Date:	
Work Orde	r:					DISPOSITION AGAINST D			AGAINST DE	PARTMENT	/PROCESS	•	
					,	Rework	1		Skid-tube	Crosstube		Water Jet	Engineering
Part N	lo					Scrap	]	ľ	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is	<b>∮  </b>		noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR N	lo	r				Work Order Update	J Į		Large Fab	Composite	_	Supplier	
D					Dosari	ntion of work order undete	الم	nitial	Λ.	tion	Sign 9		
Root		Data	Cton	0+1		ption of work order update or Non-conformance	1	nitiai ief Eng		tion ription	Sign & Date	Verification	QC Inspector
Cause loc/Data	+	Date	Step	Qty		or Non-comormance	CII	iei Eligi	Desc	прион	Date	verification	QC HISPECTOI
quip/Tooling	$\dashv$												
perator	-												
/aterial	_												
etup	$\dashv$												
ther	$\dashv$			'									
rocess	$\exists$												
upplier	$\exists$												
raining													
Inapproved													
						F	AUL	T CATE	GORY				
Landin	ıg Ge	ar				General		•			<del></del>	-	-
	В	ending				Bend		Grain			Ovalized		Pressure/Forced
	_	entre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re	_	Over/Under	<u></u>	Temperature/Cure
		racks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	_	rushed/C	Crimped		_	Burrs		ł	ions Incomplete/	'Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
Ĺ		uffs				Contamination		Mainte	nance		Part Moved		
	Щн	leat Treat	t			Countersink		Mislabe	led	L	Positioned V	Vrong	7
	Inspection Strip in Tube Cut Too Short				Misread			Power Loss/Surge Ot		Other			

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D3794-3

D350-636-011

Parent Item Name: Skidtube LH

Manufactured

Purchased

No

\*93026\* \*D350-636-011\*

Start Date: 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

John IK

de C	20	70		0*	
W.	033	1/8	4-	ອນ	
Gask	et				

<b>Location</b>		Loc	Otv	Loc Code		
FP			24			
9	1855		12			YL
92	2658		12			
FP002			5			
74	1530		2			
86	5243		3			
		230	Each	54.0000	4	4

Each

29.0000

230

AN6C44A



		**	JU_	alaloce	
Location	Loc Oty	Loc Code			
FG	2				
103964	2	M123930	- VU		
ST340	34		`		
122491	34,				
ST341	4				
122843	4				
ST343	14				
121013	11				
121167	2			•	

122204

		DQA:	Date:	•	
NCR: Yes / N	WORK ORDER NON-CONFORMANCE / UPDATE	<u></u>		•	
	-	OA Clasadi	Data	•	•

										QA Ciosea.	Date	•		
Work Orde	er:			DISPOSITION				AGAINST DEPARTMENT/PROCESS						
Part No.						Rework Scrap Use-as-is	Th	Skid-tube  Machining ermoforming	Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other			
NCR No.						Work Order Update	]	Large Fab	Composite		Supplier			
Root						ption of work order update	Initia	1	Action	Sign &				
Cause		Date	Step	Qty	•	or Non-conformance	Chief E	ng De	scription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator														
Material	П				·									
Setup	П													
Other	П													
Process	П													
Supplier	П											•		
Training														
Unapproved														
						F	AULT CA	TEGORY						
Landi	ng G	ear				General				_				
		Bending				Bend	Grain			Ovalized		Pressure/Forced		
	Ш	Centre No	ot Concei	ntric to	o/s	BOM/Route	Har	Hardware		Over/Under tolerance Temperat		Temperature/Cure		
	Cracks					Broken/Damaged	Insp	Inspection Incomplete		Part Incorrect		Weld		
	Crushed/Crimped.					Burrs	<u> </u>	ructions Incomplet	e/Unclear	Part Lost/Missing Wrong Stock P		Wrong Stock Pulled		
	Cuffs			_	Contamination	Ма	intenance		Part Moved					
	Heat Treat					Countersink	Mis	abeled		Positioned \				
]	$\vdash$	Inspection		Tube		Cut Too Short		read		Power Loss,	/Surge	Other		
	$\boldsymbol{\vdash}$	Ripples in				Drill Holes .	Offs							
	_	Torque W			n L	Drawing	$\vdash$	of Calibration						
	_	Turning S				Finish	Out	of Sequence						
	Wave/Twist in Tube				1	Folio	I lout	side Dimensions						

. November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

42.0000

ulistoc

Location	Loc Qty	Loc Code	
ST319	42		
115884	1		
118077	1		
119309	2		
119638	1		<del></del>
122141	5		
122452	2		
123346	30		<u> </u>
	230 Ea	ch 16.0000	1 1

D3536-25

Gasket

Manufactured

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Halaloc\_\_\_

Location		Loc Oty	Loc Code	
FG		2	13 93154	
	87053	2	(2 (2)2)	11
FP002	•	14		
	83900	1		· · · · · · · · · · · · · · · · · · ·
	89057	1		
	91814	12		

NCR:	Yes	/	No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

					WORK ONDER NOW					QA Closed:	Date	· · ·
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Part No. Rework  Scrap							ı	Skid-tube Machining	Crosstube Small Fab Finishing	-1	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N							Composite	Rec/stor	Supplier	- Other		
Root				Descri	ption of work order update	lr	nitial	Acti	ion	Sign &		
Cause	Date	e Step	Qty		or Non-conformance	Chi	ief Eng	Descr	iption	Date	Verification	QC Inspector
oc/Data							,					
quip/Tooling												
perator												
/laterial												
etup		1										
Other	<u> </u>											
rocess				}								
upplier	_ ,					1					·	
raining	_		i			1						
Inapproved	<u>L</u>		_i	<u> </u>		<u> </u>				<u> </u>		
						AUL	T CATE	GORY		,		
Landin	g Gear			_	General				_	7	_	
	Bendir	-		<u> </u>	Bend	$\vdash$	Grain		<u> </u>	Ovalized	_	Pressure/Forced
-		Not Conce	entric to	o/s	BOM/Route	$\vdash$	Hardwa		_	Over/Under	-	Temperature/Cure
	Cracks				Broken/Damaged	$\vdash$		ion Incomplete		Part Incorre	<u> </u>	Weld
1	_	d/Crimped	<b>i</b> .	<u>_</u>	Burrs	-		ions Incomplete/L	Jnclear	Part Lost/M	issing	Wrong Stock Pulled
1	Cuffs Contamination				<b>≓</b>	-	Mainte			Part Moved		
	Heat Treat Countersink				4	Ш	Mislabe	eled		Positioned V		
L		tion Strip i	n Tube	<u>_</u>	Cut Too Short	$\vdash$	Misread	t		Power Loss/	'Surge	Other
Ripples in Bend Drill Holes						$\vdash$	Offset					····
	Torque Waves in Extrusion Drawing						Out of (	Calibration				
	Turning Sequence Finish						Out of 9	Sequence				
ſ	Wave	Twist in Tu	ibe	[	Folio		Outside	Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

"Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

Start Date: 13/11/2012

Required Date: 27/11/2012

Start Qty: 1.00

Required Qty: 1.00

D3631-1 Washer

\*D879151

Manufactured

No

230

Each

115.0000

il 11/17/06

Location Loc Oty <u>Loc Code</u> <u>B</u>93321 FG 20 81874 2 83588 18 FP-A 80 91606 80 ST072 15 68062 2 75548 13

D3791-1

Wearplate

Manufactured

No

230

Each

7.0000

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Location Loc Qty Loc Code B41899 FP001 89244 FP002 3 62239 2 83392 230 Each

AN960C10L

NAS1149C0332

Purchased

No

21.0000

38

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38

11/12/06

\*AN960G101\*

Location ST245

107534

Loc Oty

21

Loc Code M123759

November-13-12 12:40:02 PM

**Shop Packet Print** 

Page 10

											DQA:	Date:	•
NCR:	Yes	/ No				WORK ORDER NON-C	CON	FORM	MANCE / UP	DATE			
											QA Closed:	Date:	•
Work Orde	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	•
Work ord	-					Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•		,			Use-as-is		Thern	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR I	۷o.	4		,		Work Order Update			Large Fab	Composite		Supplier	
						1			<del></del>		1 0. 0		
Root						ption of work order update	1	nitial	i	tion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Chi	ef Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling	Ц												
Operator	Ш						1						
Material													
Setup							1						
Other							1						
Process	П												
Supplier	П												
Training	7												
Unapproved	П												
.,					1	F	AUL	CATE	GORY	,	<u></u>		
Landi	ng G	ear				General							
	$\overline{}$	Bending				Bend		Grain			Ovalized		Pressure/Forced
	П	Centre No	ot Conce	ntric to	o/s	BOM/Route	П	Hardwa	ire		Over/Unde	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Ripples in Bend (

Turning Sequence

Wave/Twist in Tube

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D2745

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

\*N9745\*

Manufactured

230

Each

16.0000

8 M nhz 104

<b>Location</b>	Loc	: Oty	Loc Code		
FP		12	397530	1	1 0
79518		6			
89303		6			
FP001		4			
69529		ı			
76142		l			
83260		2			
	230	Each	334.0000	34	34

AN3C5A



Purchased

No

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M alizho,

Location	Loc Qty	Loc Code	
FG	5		
122800	5	M123831	×34
ST350	34		
115835	0		
123525	34		
ST512	295		
115835	7		
116419	28		
117343	13		
117764	7		
117872	2		
119749	23		
120423	28		
121255	23		
121708	77		
122141	80		
122800	7		

												DQA:	Date	:·
NCR:	Yes	/ No					WORK ORDER NON-C	COP	NFORI	MANCE / UPI	DATE			
					_							QA Closed:	Date	:
Nork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
	Part No. Rework  Scrap  Use-as-is								ı	Skid-tube Machining noforming	Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR	No.			·			Work Order Update			Large Fab	Composite	]	Supplier	
Root					Des	crip	otion of work order update	Ti	nitial	Act	ion	Sign &		
Cause		Date	Step	Qty		C	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling perator laterial etup ther rocess upplier raining		•												
							F.	AUL	T CATE	GORY				
Land	ing (	1			,		General		1			7	_	<b>,</b>
	Bending Centre Not Concentric to O/S Cracks Bend BOM/Route Broken/Damaged							_	Grain Hardwa Inspect	re on Incomplete	-	Ovalized Over/Under tolerance Part Incorrect		Pressure/Forced Temperature/Cure Weld
	$\boldsymbol{H}$						Burrs	Г	1	ions Incomplete/l	Jnclear	Part Lost/Mi	<del></del>	Wrong Stock Pulled
	Cuffs Contamination						Contamination		Mainte			Part Moved	, L	
	Heat Treat Countersink								Mislabe	eled		Positioned V	Vrong	
	Inspection Strip in Tube Cut Too Short								Misread	d .		Power Loss/	Surge	Other
	Ripples in Bend Drill Holes								Offset					
		Torque W	aves in E	xtrusior	۱		Drawing		Out of (	Calibration				
	$\Gamma$	Turning S	equence				Finish		Out of	Sequence		-		

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

NAS1149C0832R

D350-636-011

Manufactured

No

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

Start Date: 13/11/2012

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47.0000

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

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D3537-1/		<b>,</b> //
*DIS	537_1	*   <del> </del>
Wearpad		9
	( Per	
	NOT!	_

<u>Location</u>	<u>Lo</u>	e Oty	Loc Code		
FP001		33			
90197		9	139775	8	<u> </u>
91668		24	10 , 0		
FP002		14			
83254		1			
83255		3			
87697		1			
88562		9			
	230	Each	391.0000	1	1

Each

Purchased Purc NAS11449C0832R\*\*

Location Loc Code Loc Oty 296 200 122441 200 ST297 191 114915 191

230

el minos

												DQA:	Date:	•
NCR:	Yes	/ No					WORK ORDER NON-O	O	NFORM	/IANCE / UP	DATE	OA Charach	D - 4 -	•
				1								QA Closed:	Date:	-
Work Order:											AGAINST D	EPARTMENT	PROCESS	•
		· · · · · · · · · · · · · · · · · · ·					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part	No.						Scrap	1 1	l	Machining	Small Fab		d. Eng. Coor.	Quality
							Use-as-is			noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR	No.						Work Order Update	]		Large Fab	Composite		Supplier	_
Root					Des	crip	otion of work order update		nitial		tion	Sign &		
Cause		Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
oc/Data	L				,									
quip/Tooling	<u></u>													
perator	<u> </u>													
1aterial	<u></u>												•	
etup	<u> </u>													
ther														
rocess	<u> </u>		1											
upplier	$\vdash$	,												
raining	_	1												
napproved			l	<u>l                                     </u>					T 64TF	CORY				
								AUL	T CATE	JURY		·		
Land	ing (	Bending			ľ		General Bend		Grain		_	Ovalized		Pressure/Forced
	$\vdash$	Centre No	at Canca	ntric to C	1/5		BOM/Route	$\vdash$	Hardwa	ro	<u> </u>	Over/Under	tolerance	Temperature/Cure
		Cracks	or concer	ntric to c	)/3 		Broken/Damaged	-	1	on Incomplete	-	Part Incorre	<b>├</b>	Weld
	$\vdash$	4	Crimpod				_	-	1	ions Incomplete/	/Unclear	Part Lost/Mi	<b> </b>	Wrong Stock Pulled
	Crushed/Crimped. Burrs Cuffs Contamination						Contamination	-	Mainte	•	Gifcical	Part Moved	1331116	
	Heat Treat Countersink							$\vdash$	Mislabe		-	Positioned V	Wrong	
	<b>├</b>						Cut Too Short	-	Misread		-	Power Loss/	_	Other
	Ripples in Bend Drill Holes							$\vdash$	Offset	•	L	J. 04461 2033/		0
	$\vdash$	4 ' '		Extrusion	,		Drawing	$\vdash$	-1	Calibration				
	<b> </b>	Torque Waves in Extrusion Drawing  Turning Sequence Finish								Seguence				

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

· November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\*

\*D350-636-011\*

**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased No

Purchased

No

230 Each

945.0000

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Locatio	<u>n</u>	Ī	oc Oty	Loc Code		
FG			10			
	122416		10			
FP001			1			
	111982		1			
ST512			934			
	111982		2			
	116419		23			
	116549		2			<del></del>
	116704		12			<del></del>
	117619		10			
	117688		1			-
	117872		5			
	118422		13			
	119449		21			
	120423		3			
	120693	•	34			-
	121682		4			
	122416		304			
	122599		500			XH
	_	230	Each	112.0000	8	8

\*NASIA11=013\*

NAS1611-013

Location Loc Qty Loc Code FP001 112 116582 5 117291 2 117887 53 M123741 119623 36 121825 10 122993 6

											DQA	: Date	:	
NCR:	Yes	/ No				WORK ORDER NON-C	10:	<b>NFORM</b>	MANCE / UPI	DATE				
											QA Closed	: Date	<u>:</u>	
Work Ord	or:					DISPOSITION				AGAINST DE	PARTMENT/PROCESS '			
WORK Ord	er.				<del></del>	Rework			Skid-tube	Crosstube	]	Water Jet	Engineering	
Part I	No.					Scrap			Machining	Small Fab	Pro	od. Eng. Coor.	Quality	
	•					Use-as-is			noforming	Finishing	4	ore/Packaging	Other	
NCR I	No.				<u></u>	Work Order Update	]		Large Fab	Composite	]	Supplier		
Root			I		Descri	ption of work order update		nitial	Act	ion	Sign &			
Cause		Date	Step	Qty	1	·		ief Eng		ription	Date	Verification	QC Inspector	
Doc/Data	Γ							<u> </u>						
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier					1		]							
Training														
Unapproved														
						F/	AUL	T CATE	GORY					
Landi	ng (	Gear			_	General					_	_	<b>-</b>	
	<u></u>	Bending Bend				4		Grain			Ovalized		Pressure/Forced	
	<u></u>	Centre No	ot Concer	ntric to	O/S	BOM/Route		Hardwa	ire		Over/Unde	r tolerance .	Temperature/Cure	
	L.	Cracks				Broken/Damaged	L	Inspect	ion Incomplete		Part Incorr	ect	Weld	
		Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/I	Unclear	Part Lost/N	Aissing	Wrong Stock Pulled	
	$oxed{oxed}$	Cuffs			L	Contamination		Mainte	enance		Part Move	d		
	Heat Treat				Countersink		Mislabeled			Positioned Wrong				

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

Turning Sequence

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Wave/Twist in Tube

Cut Too Short

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

· November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name: Skidtube LH

\*93026\* \*D350-636-011\*

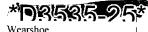
**Start Date:** 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Oty: 1.00

D3535-25



D3794-1

MS21043-6

Manufactured

Manufactured

Purchased

No

No

230

Each

29 0000

Loc Code

\*\*

Il ululo6

Location Loc Qty FP001 29 62233 81357 87385 90061 91893 15 230 Each

23.0000 \*\*

Jel ististo &

Location Loc Qty Loc Code FP 15 87631 2 92426 13 FP012 90163 8 230 Each 404.0000

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11/17/06

Location Loc Qty Loc Code FG 20 103693 20 ST301 384 117887 120308 380

November-13-12 12:40:02 PM

**Shop Packet Print** 

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NCR: Ye	s / No				WORK ORDER NON-	COI	NFOR	MANCE / UP	PDATE	QA Closed: Date:				
Work Order:					DISPOSITION			AGAINST DEPARTMENT/PROCESS .					•	
Part No.  NCR No.				Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Composite		-	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other			
Root				Descri	ption of work order update	1	nitial	Ad	ction	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	١	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved											·			
						AUL	T CATE	GORY						
Bending  Centre Not Concentric to O/S			General Bend BOM/Route	$\vdash$	Grain Hardwa	re	F	<b>├</b>			Pressure/Forced Temperature/Cure			

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

DOA

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Date:

Weld

Other

Wrong Stock Pulled

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

• November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D3493-1

D350-636-011

Parent Item Name: Skidtube LH \*93026\* \*D350-636-011\*

Start Date: 13/11/2012

Required Date: 27/11/2012

Start Qty: 1.00

Required Qty: 1.00

Washer

**Location** ST052

77573 82023 Loc Code

3 0000

\*\*\*ONLY INSTALL IF INSTALLING ON APICAL

FLOAT SYSTEM\*\*\*

MS21083C8

Purchased

Purchased

Manufactured

No

No

250

250

Each

Each

2

Each

Loc Qty

42.0000

32.0000

123900 98

Location Loc Qty Loc Code ST319 42 115884 118077 119309 119638 122141 122452 2 123346 30

250

\*\*

123929 93 12/12/18

\*AN8C21A

Location Loc Qty Loc Code ST341 122519 ST342 30 123642 30 ST343 118758

November-13-12 12:40:02 PM

**Shop Packet Print** 

Page 15

			DQA:	Date:		•
ICR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE		<b>.</b>	•	•

	QA Closed. Date.										
Work Orde	r:				DISPOSITION			AGAINST DE	PARTMENT	PROCESS	•
Part N	lo				Rework Scrap Use-as-is	Tho	Skid-tube Machining moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other
NCR N	lo				Work Order Update						- Other
Root				Descri	ption of work order update	Initial	nitial Action		Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief En	g Descr	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling		·									
Operator											
Material	_										
Setup			-								
Other	_	Ì									
Process	_										
Supplier	_										
Training	_					ļ					
Unapproved		<u> </u>				<u> </u>					<u> </u>
	· <del>-</del>				F	AULT CAT	EGORY				
Landir	ng Gear			_	General				Ī	_	_
]	Bending				Bend	Grain			Ovalized		Pressure/Forced
	Centre No	ot Concer	ntric to (	o/s	BOM/Route	Hardy	vare		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	· ·	ction Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs	Instru	ctions Incomplete/I	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs	Cuffs Contamination		Contamination	Main	tenance		Part Moved			
1	Heat Trea	at			Countersink	Misla	peled		Positioned V	Vrong	_
	Inspectio	n Strip in	Tube		Cut Too Short	Misre	ad		Power Loss/	Surge	Other
	Ripples in	n Bend		L	Drill Holes	Offse	:				
	Torque W	/aves in E	xtrusio	ր <u>[</u>	Drawing	Out o	f Calibration				
L	Turning S	equence			Finish	Out o	f Sequence				
	Wave/Twist in Tube Folio				Outsi	de Dimensions					

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

November-13-12 12:40:02 PM

Work Order ID: 93026

Parent Item:

D350-636-011

Parent Item Name:

Skidtube LH

Purchased

Manufactured

No

\*93026\* \*D350-636-011\*

Start Date: 13/11/2012

**Required Date: 27/11/2012** 

Start Qty: 1.00

Required Qty: 1.00

134.0000

\*\*

ulialo &

NAS1515H3L			1
*NIAS	1184	15H31	*
WASHER	-r , ,	1	

		Location			Loc Qty	Loc Code	
		FG			40	111739	60
			102472		40		
		ST277			94		
			118686		3		
			120360		11		
			121556		45		
			122151		35		
Manufactured	No			250	Each	41.0000	

230

Each

D3532-1

D2741



<u>L</u>	<u>ocation</u>	Loc Oty
FO	3	1
	85480	1
S]	Γ466	40
	71856	1
	85480	2
	88824	37

2 37 250 Each

18.0000 \*\*

Loc Code

\*\*

Location	Loc Qty	Loc Code
ST055	18	
85484	6	
91324	12	

			DQA:
NCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE	
			OA Classel.

NCR: Ye	Yes / No WORK ORDER NON-CONFORMANCE / UPDATE  QA Closed: Date:												
Work Order					DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	,	
Part No.					Rework Scrap		r	Skid-tube Crosstube Machining Small Fab		Water Jet Prod. Eng. Coor.		Engineering Quality	
NCR No	)		··		Use-as-is Work Order Update	]	Thermoforming Finishing Large Fab Composite		Finishing Composite	Rec/Stor	e/Packaging Supplier	Other	
Root				Descr	ription of work order update	1	nitial	Act	tion	Sign &	· · · · · · · · · · · · · · · · · · ·		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector	
oc/Data quip/Tooling perator laterial etup ther rocess upplier raining napproved													
						FAUL	T CATE	GORY					
Landing	Gear			_	General		Ī			7	_	_	
	Bending Centre N Cracks	lot Concer	ntric to (	o/s	Bend BOM/Route Broken/Damaged		Grain Hardwa Inspecti	re on Incomplete		Ovalized Over/Under Part Incorred	<del></del>	Pressure/Forced Temperature/Cure Weld	
	Crushed	/Crimped.			Burrs		Instruct	ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
L	Cuffs				Contamination		Mainte	nance		Part Moved			
<u></u>	Heat Tre	at			Countersink		Mislabe	led		Positioned V	/rong		
	Inspection	on Strip in	Tube		Cut Too Short		Misread	l		Power Loss/	Surge	Other	
	Ripples i	n Bend			Drill Holes		Offset		<del></del>				
L	Torque \	Waves in E	xtrusio	ı L	Drawing		Out of C	Calibration					
	Turning	Sequence			Finish		Out of S	Sequence					
	Wave/Twist in Tube Folio					Outside Dimensions							

Date:

QTY -041 QTY QTY QTY -042 -043 -044 PART NUMBER DESCRIPTION X D2750-041 350 SKIDTUBE ASSEMBLY, LH D2750-042 350 SKIDTUBE ASSEMBLY RH D2750-043 350 SKIDTUBE ASSEMBLY LH D2750-044 350 SKIDTUBE ASSEMBLY RH D2739 WEB 8 8 8 8 D2743 SPACER 1 D2744 CAP 8 8 8 8 D2745 BUSHING D2750-1 SKIDTUBE WELDMENT LH D2750-2 SKIDTUBE WELDMENT RH D2750-3 SKIDTUBE WELDMENT, LH D2750-4 SKIDTUBE WELDMENT RH D3488-041 BLADE FITTING LH D3488-042 BLADE FITTING, RH D3490-1 4 SPACER 4 4 D3490-3 SPACER D3490-5 SPACER 8 8 8 D3492-041 PLUG ASSEMBLY 8 D3492-043 PLUG ASSEMBLY 8 D3492-045 PLUG ASSEMBLY . 1 1 D3535-25 WEARSHOE 1 1 D3536-25 GASKET 3 3 3 WEARPAD D3537-1 8 8 18 8 D3631-1 WASHER D3791-1 WEARPLATE \_\_1 1 1 D3793-1 WEARSHOE 1 D3793-3 WEARSHOE Æ 1 1 . 1 1 D3794-1 GASKET 11 D3794-3 GASKET INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225) 38 38 38 ALS4-1032-225 34 34 134 34 AN3C5A BOLT 4 AN3C6A 4 BOLT 4 4 AN6C44A BOLT AN8C35A 1 1 BOLT 38 38 38 38 AN960C10L WASHER 1 AN960C816L WASHER 4 4 MS21043-6 4 4 NUT 1 1 MS21083C8 NUT 4 4 4 NAS1515H3L WASHER

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DESIGN	₽¢,	DART AEROSPACE USA, INC.					
DRAWN	RE	PORT HADLOCK, WA					
CHECKED	114	DRAWING NO.	REV. F				
MFG APPR.	MO	D2750 <sub>SH</sub>	SHEET 1 OF 11				
APPROVED	154	TITLE	SCALE				
DE APPR		350 SKIDTUBE ASSEMBLY	NTS				
DATE 08.0	7.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.  THIS DOCUMENT IN PRINTE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONCIDENTIAL IT IS  THE SUPPLIED OF THE EXPRESS CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONCIDENTIAL IT.					

**GENERAL NOTES:** 

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MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

FINISH:

ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A IDENTIFICATION: N/A

WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS

WELD PER DART QSI 004

WELD PER DART QST UD.

INSTALL ALSA-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL "F" SIZE HOLES (Ø0.297) FOR WEARSHOE INSERTS

FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD ITENSILE STRENGTH = 35 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI

SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.

COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF

POWDER COATING WITH MEK DEGREASER.

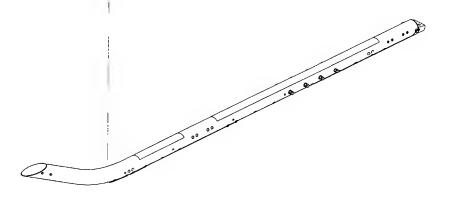
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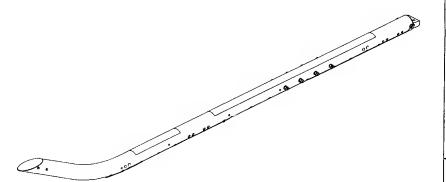
IN PERMISSION FROM DARY AERICSPACE USA INC

93026 D2750-041 350 SKIDTUBE ASSEMBLY, LH D2750-042 350 SKIDTUBE ASSEMBLY, RH DESIGN DART AEROSPACE USA, INC. PORT HADLOCK, WA DRAWN DRAWING NO. CHECKED REV. F D2750 MFG. APPR. SHEET 2 OF 11 APPROVED TITLE SCALE 350 SKIDTUBE ASSEMBLY NT
COPYRIGHT 6 1998 BY DART AEROSPACE USA, INC.
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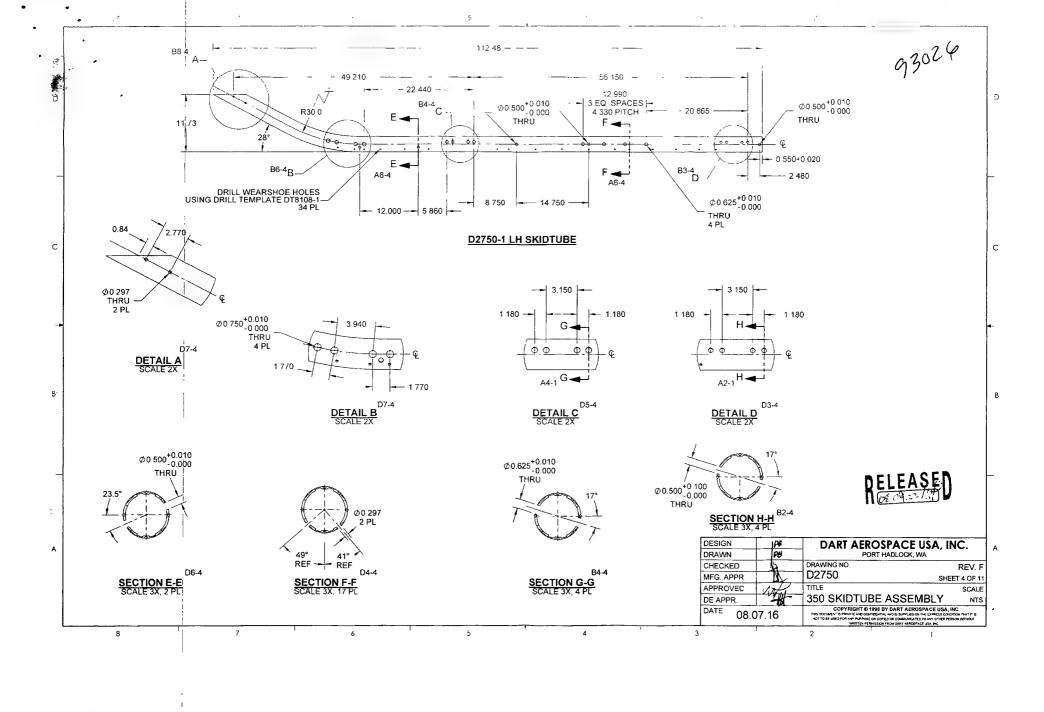


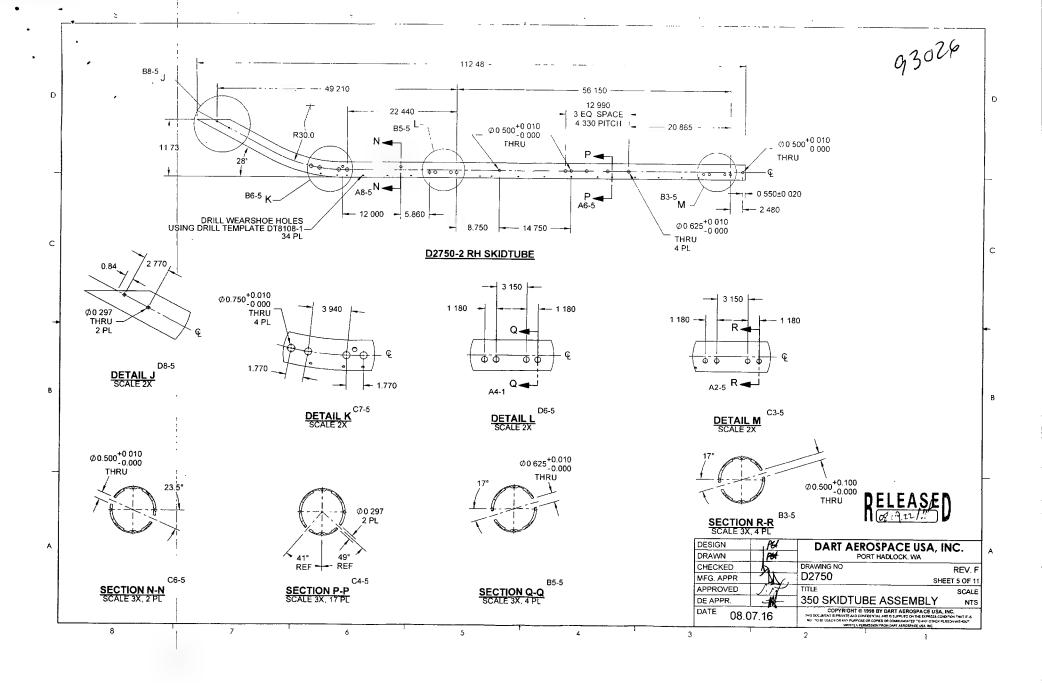
D2750-043 350 SKIDTUBE ASSEMBLY, LH

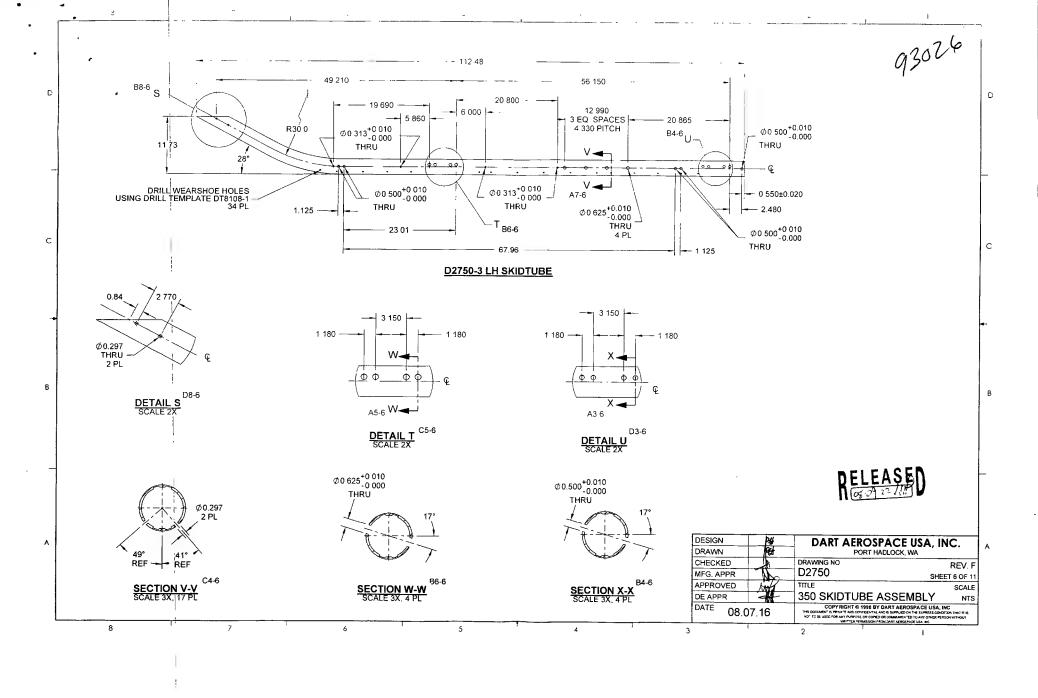
D2750-044 350 SKIDTURE ASSEMBLY, RH

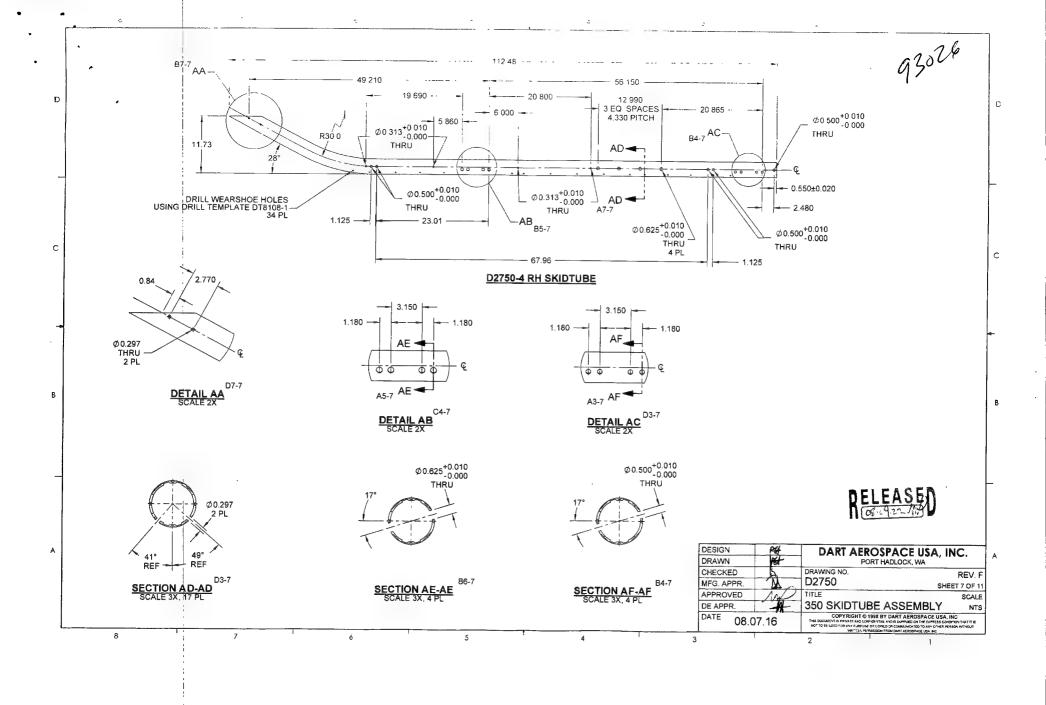


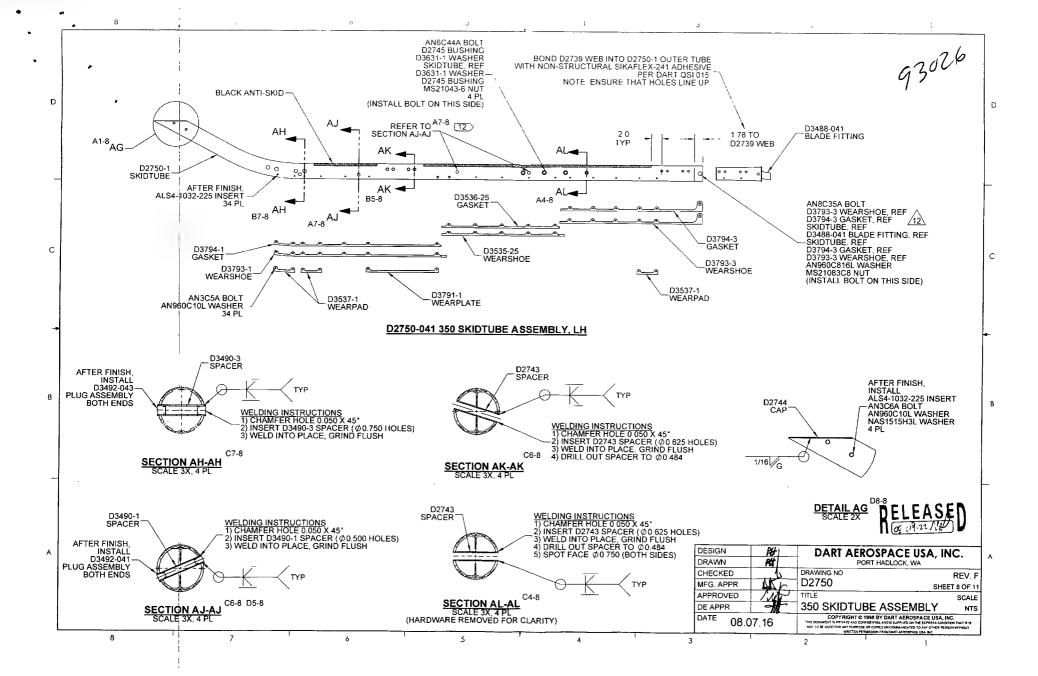
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MFG. APPR	M	D2750	SHEET 3 OF 11
APPROVED	NA	TITLE	SCALE
DE APPR	4	☐350 SKIDTUBE ASSEMBL	Y NTS
DATE 08.0	07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC THIS DOCUMENT'S PRIVATE AND CONFERENTIAL MID IS SUPPLED ON THE EXPRESS CONSTRONTING IT IS NOT TO BE USED FOR ANY PURPOSE OF COMED ON COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PRESSORS HOW DART ARRESPACE USA NO.	

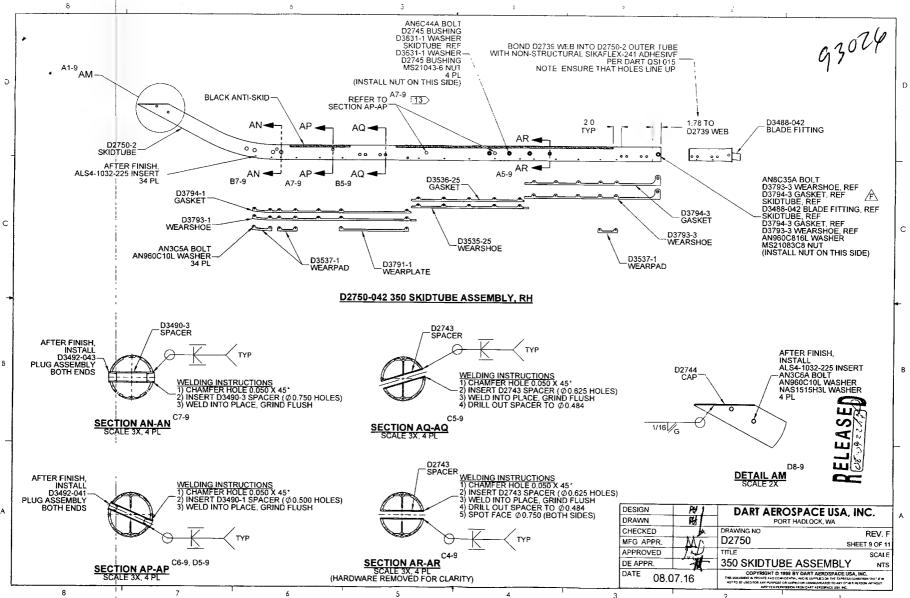


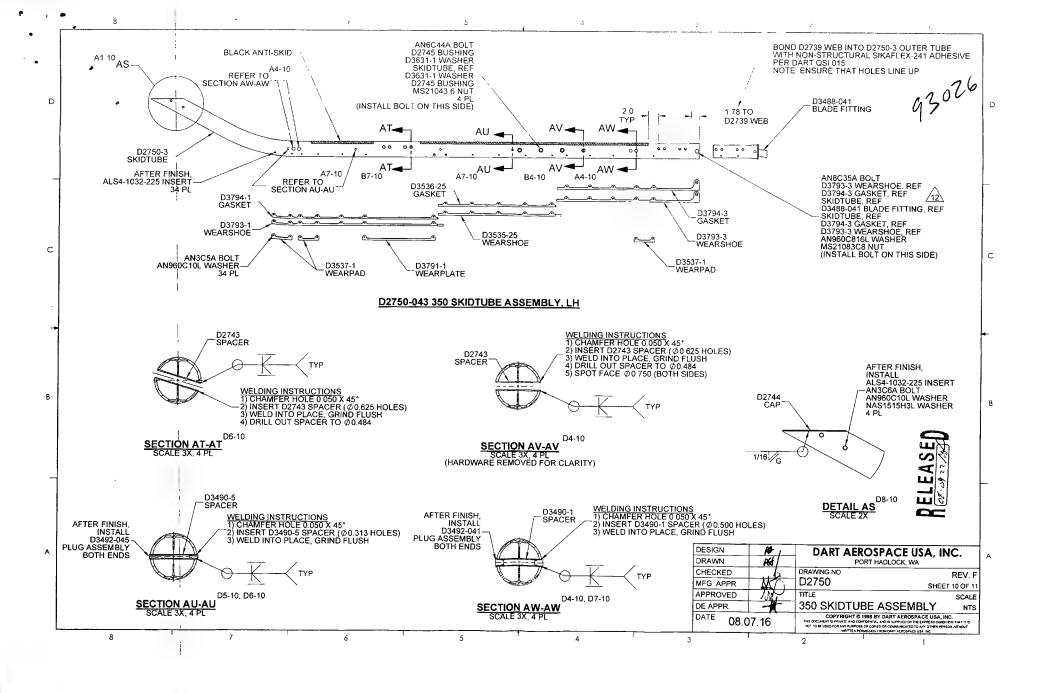




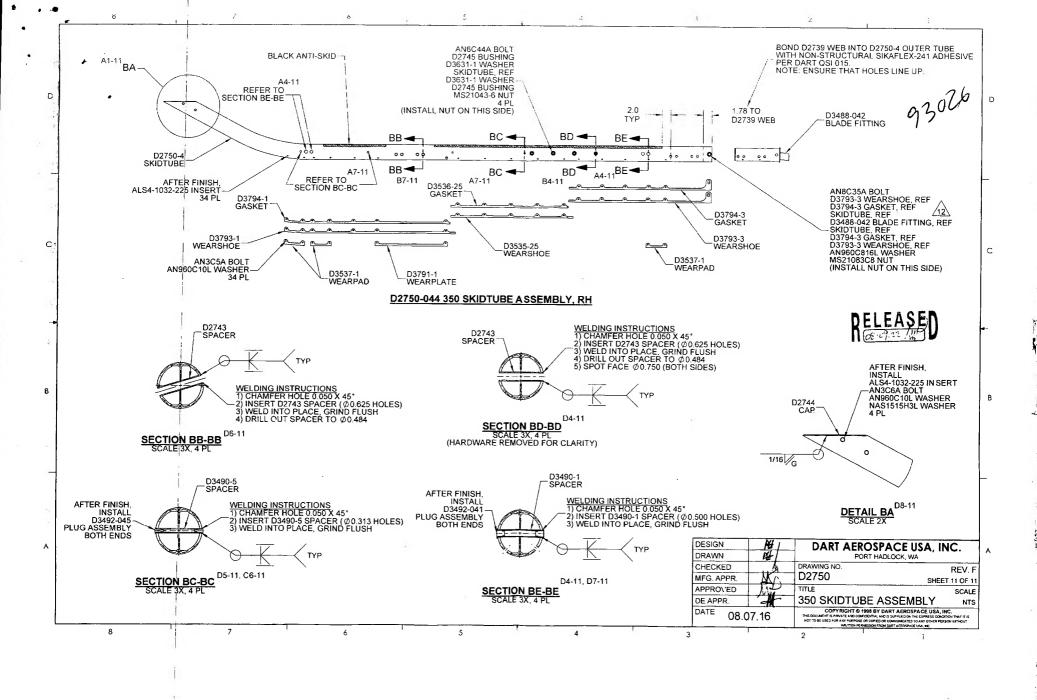








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NO. 306

# AWS D17.1.2001 QUALIFICATION TEST RECORD

						1
Name: Barday E	lliott		٠, بيسو، ا		. — — —	1
Job #:90946 0					1	
Part #: 0350 - 636-6	110				1 1 a	
Description: Skid						
Welding Process: Tig[v	<b>Y</b> Mig[]					
Base materiel:A	uminium					
Current: AC[V] DC[	]					
			1			1.
	-					
$\mathbf{T}$	EST REQU	<u>JIREM</u>	ENT'S	AND	RESU	
					. 1	
÷.		,				
Visual:		pass[/	fail[ ]			
Incomplete Penetration	•	pass				
Incomplete Fusion:	•	pass[/			7	
Cracks:		pass[	fail[]		5	
Overlap (cold lap)		pass[	fail[ ]			
Undercut:		pass[ ]	fail[]			
Pin holes:		pass[-	fail[]		4	ľ
Porosity (surface):		pass[-]	fail[]			
Coloration:		pass[	fail[ ]		1	
Burn through:		pass[/]	fail[]			
						1
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$VI \cap$	) = = = = = = = = = = = = = = = = = = =		-	12		!
Qualifier / A. Jw		Date of To	est Coupe	on la-	10-19	<del></del>
	alle	m 4 emm	4.0	,	011	
Welder Borcloy &	thort_	Date of T	est Coup	on <i>/2</i> 7	1070	

The above named individual is qualified in accordance with AWS D17.1.2001 to weld